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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,520	02/09/2004	Detlef Michelsson	21295.73 (H5749US)	3203
29127	7590	03/07/2006	EXAMINER	
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			ALLAWI, ALI	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/774,520	Applicant(s) MICHELSSON, DETLEF 	
	Examiner ALI ALLAWI	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not entirely clear what is meant by superimposing partial acceleration as stated in the claim, and correct interpretation of the text yields a superimposition between two different ends of the wafer with regards to acceleration and the subsequent deceleration. After viewing the disclosed subject matter in the other claims, this claim will be interpreted as containing similar subject matter to the independent claims and will hence be searched, however proper correction is respectfully requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2-8, 13-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kian et al. (2003/0092267).


In regards to claims 1, 14, and 17 Kian et al. discloses a method and apparatus for scanning a semiconductor wafer in a plurality of scan lines that comprise: a camera

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for image acquisition, means for generating relative motion between the camera and the wafer whereby defining a scanning speed in a direction of the scan line, a control device with which upon a changeover from a current scan line to a new scan line that is to be scanned next, a deceleration of the relative motion in the direction of the scan line is carried out until that relative motion comes to a standstill, and a subsequent acceleration in an opposite direction of the scan line is carried out until the scanning speed is reached, and the control device performs a superimposition on that relative motion with regard to acceleration and subsequent deceleration of a relative motion between camera and wafer perpendicular to the scan lines until the new scan line is reached. Kian further discloses a rectangular image field of the camera that is shaped in a diamond configuration. It is inherent to utilize that diamond form of a rectangular configuration in any orientation possible to achieve the desired scan and overlap technique. Kian et al. discloses controlling of scan velocity but is silent detailed operation of the scanning device, and is silent to specific design parameters, however, relative motion is understood to be a vector quantity and thus change in the direction of the vector quantity is a change in that relative motion and its qualities. This is applicable to tangential acceleration and deceleration and hence leads to a zero relative motion at one point during the turn that will subsequently lead to change in velocity and hence acceleration and deceleration. It would have been obvious to one of ordinary skill in the art at the time of invention to fully utilize the controllable velocity to vary changes in relative speeds to achieve better scan time and efficiency. (Paragraphs 112 and 113, Fig. 15)

In regards to claims 9-12, Kian et al. discloses the method and apparatus as stated above and further discloses regions on the wafer adjacent to one another in the scan line direction that are imaged with the camera and their images partially overlap. Kian et al. further discloses a complete scan of the wafer and images of the entire surface of the wafer acquired. (Paragraphs 112 and 113, Fig. 15)

In regards to claim 16, Kian et al. discloses everything as stated above except for being silent in regards to a controllable securing stage for the wafer, however the applicant discloses (Paragraph 38) that this is well known in the art. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teachings of Kian et al. in conjunction with applicant indication of feature to design/provide the moving stage to meet the terms of the claims. (See In Ex parte McGaughey, 6 USPQ2d 1334, 1337(Bd. Pat. App. & Int.1998).



HWA (ANDREW) LEE
PRIMARY EXAMINER